

Appl. No. 10/064,620
Amdt. Dated Jan. 4, 2006
Reply to Office Action of October 05, 2005

REMARKS/ARGUMENTS

This amendment is responsive to the Office Action mailed on October 5, 2005. In the Office action claims 1-31 were rejected.

Claims 1-8, 10, 12-14, 23-26, 28, 30, and 31 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Ransford et al. (EP 479, 563 A2, hereinafter "Ransford") and Scorse et al. (U.S. Patent No. 5, 128, 776), claims 9, 11, 17, 18, 27 and 29 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Ransford and Scorse and further in view of Chui et al. (U.S. Patent No. 5, 841, 473, hereinafter "Chui"), claims 15 and 16 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Ransford et al and Scorse and further in view of Flower et al. (U.S. Patent No. 6,351,663, hereinafter "Flower"), claim 19 was rejected under 35 U.S.C. §103 (a) as being unpatentable over Ransford and Scorse and further in view of Reinsch (U.S. Patent No. 5, 134, 661, hereinafter "Reinsch") and claims 20-22 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Ransford et al and Scorse and further in view of Koo et al. (U.S. Patent No.5, 846,203, hereinafter "Koo"). The Specification was objected to due to certain informalities in claim 30.

In this response, claims 12 and 17 have been amended to recite the subject matter more clearly. No new matter has been added. Claim 30 has been amended to overcome the objections as cited by the Examiner and the Applicant thanks the Examiner for the helpful suggestion and requests the withdrawal of the objection in view of the claim amendment.

Claims define allowable subject matter over the applied art

The independent claims 1, 12, 14, 15, 17, 20, 23, 24, 30 and 31 have been rejected under 103 (a) as being unpatentable at least in view of Ransford and Scorse. Applicant has carefully reviewed the applied references, and respectfully traverses the rejection of independent claims 1, 12, 14, 15, 17, 20, 23, 24, 30 and 31, under 35 U.S.C. §103 (a) as being unpatenatable over Ransford and Scorse.

Ransford discloses a compression technique which utilizes a "difference" model approach in which, prior to compression, a portion of the image falling outside a designated area of interest may be eliminated, for subsequent replenishment with a standard reference image. The compressed differenced image may be subsequently transmitted and/or stored for subsequent decompression and addition to a standard reference image so as to form a reconstituted or approximated subject image (See Abstract). The method disclosed in Ransford makes use of the fact that images are inherently similar and that therefore, a priori knowledge of the images can be used in their compression. Such technique allows subtraction of two images, for example, one standard "healthy" image and one containing data of relative diagnostic significance, including correction for differences in

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orientation and geometry of the features contained in the images before subtraction. The image which remains after subtraction comprises information due to the differences between the images (column 8, lines 31-41).

However Ransford does not disclose, teach or suggest the claim recitation of "span of interest obtained from an acquired imaging sequence" and as recited in independent claims 1, 12, 23, 24, 30, 31 and "at least one frame of interest" as recited in claims 14, 20 and "plurality of frames of interest" in claims 15, and 17, and "lossless compression" as recited in the independent claims 1, 12, 14, 15, 17, 20, 24, 30 and 31 and "lossy compression" as recited in independent claim 23. In contrast, Ransford selects an "area of interest" (see column 5, lines 38-40) and not "span of interest" and there is absolutely no mention in Ransford about what type of compression is used, lossy or lossless. Both lossy and lossless compression are unique and distinct and Ransford though generally refers to compression but does not disclose, teach or suggest specifically "lossy" or "lossless compression". Support for "lossless compression" can be found on Page 5, line 25 and support for "lossy compression" can be found on Page 11, line 14. Further in Ransford the "area of interest" image is modeled based on a three-dimensional model to provide a modeled subject image. The modeled subject image is then registered with a modeled referenced image and then the modeled subject image and the modeled referenced images are differenced to provide a differenced image and the differenced image is compressed (see column 7, lines 2-35). Additionally, Ransford does not teach the claim recitation of **"applying lossless compression to the portion of the image in a span of interest and obtaining a compressed image sequence"** of claims 1, 12, 23, 24, 30, 31 and **"applying lossless compression to at least one frame of interest"** of claims 14, 20 and **"applying lossless compression to the plurality of frames of interest"** as recited in claims 15, and 17.

Applicant respectfully submits that Scorse like Ransford does not teach, disclose or suggest similar claim recitations of "span of interest obtained from an acquired imaging sequence" as recited in independent claims 1, 12, 23, 24, 30, 31 and "at least one frame of interest" as recited in claims 14, 20 and "plurality of frames of interest" in claims 15, and 17, and "lossless compression" as recited in all the independent claims 1, 12, 14, 15, 17, 20, 24, 30 and 31 and "lossy compression" as recited in independent claim 23.

The embodiments disclosed in Scorse are directed merely towards systems and method of transmitting video images with limited bandwidth. The system disclosed in Scorse permits the operator of a video image system to selectively transmit desired portions of the video image at an operator selected resolution, operator selected compression level, and operator selected order of transmission of each of the portions (see Abstract). Regarding compression, Scorse discloses that the compression may be narrow, moderate or full (see column 7, lines 27-28). However Scorse still does not teach "span of interest obtained from an acquired imaging sequence", "frame of interest", "lossy", and "lossless compression". At best the Scorse teaches selecting one or more portions of the video image for transmission (see column 4, lines 34-36) but there is absolutely no disclosure, teaching or suggestion about "selecting a portion of an image in a span of interest obtained from an acquired imaging sequence" as recited in the independent claims. The Examiner has referred to Fig. 1, ref. 14, 34 and Fig 2, block

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labeled "Select Image(s) to transmit" as a teaching for "span of interest". However, the Applicant respectfully submits that in Fig. 1, ref. 14 and 34 merely designate the storage and RCVR control /processing respectively and the block referred to in Fig. 2 merely indicates a "selection" of Image and again as discussed hereinabove, does not disclose, teach or suggest that the selection is in a "span of interest" as recited in the independent claims and as supported in the detailed description of the Applicants' specification on page 5, lines 10 and 22.

Thus Ransford and Scorse taken individually or collectively, are both completely devoid of any teaching, disclosure or suggestion that can lead to the above mentioned claim recitations of independent claims.

Applicant respectfully submits that irrespective of what the other references of Chul, Flower, Reinsch, and Koo which have been used in conjunction with Ransford and Scorse to reject select independent claims and dependent claims under 35 U.S.C. 103 (a), disclose, teach or suggest, since the primary references of Ransford and Scorse do not teach, disclose or suggest the specific claims recitations of independent claims as discussed above, any further combination with Ransford and Scorse will still not yield the above claim recitations of the Applicant's application.

Thus the Applicant respectfully submits that the independent claims 1, 12, 14, 15, 17, 20, 23, 24, 30 and 31, are patentable under 35 U.S.C. §103 and therefore, are allowable. Claims 2-11 depend directly or indirectly from claim 1, claim 13 depends from claim 14, claim 16 depends from claim 15, claims 18, 19 depend from claim 17, claim 21-22 depend from claim 20, and claims 25-29 depend from claim. These dependent claims are similarly allowable.

In view of the foregoing remarks, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. §103 (a).

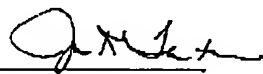
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Summary

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are respectfully requested.

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact Applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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